

Figure 5-3.

# ATOS Data Quality Guidelines.



**Version 2.0**

June 01, 2001

▪ **The Need for Quality Data.**

- The purpose of the Evaluation Module is to validate the data collected through the Surveillance Implementation process and to ensure that only high-quality information enters the ATOS data repository for analysis.
- The Evaluation Process provides the Certificate Management Team (CMT) with the means to evaluate the data collected through surveillance before the data enters the ATOS data repository.
- The output of the Evaluation Process is valid, accurate, technically relevant, and complete surveillance data that are ready for the Analysis Process.

• **What is Quality Data?**

- Why collect data in the first place? Data collection has always been a part of problem resolution and an integral part of the scientific method. Data collection serves to help describe, document, and ultimately analyze existing conditions of an air carrier. It supplies information to support decision-making and communication.
- *Data is a set of facts that when compiled provides information for decision-making. Data represents real-world objects.*
- *An acceptable level of quality has been achieved if the data conforms to a defined specification and the specification correctly reflects the intended use.*
- Quality data provides a reliable measurement tool to assess the regulatory compliance and system safety of an air carrier. Quality data helps close the gap between the views of the real-world air-carrier system obtained by direct observation, and the view of the air carrier system obtained through data in the Information System.

• **What is Poor Quality Data?**

- When the data doesn't reflect real-world conditions and is not easily understood this indicates poor quality data.
- Even accurate data, if it is redundant, or not interpretable by the user, is of little value. If the data is of insufficient quality, most of it will be unusable.
- Poor quality data is costly. Some of the impacts of poor data quality may include increased operational cost, difficulty in setting and executing strategy, and less effective decision-making.

• **Impact of SAI/EPI/DOR Answers on Data Quality.**

- Before answering, "YES," "NO," or "N/A" to an EPI, SAI, or DOR question, it is important to understand the impact of the answer in regards to data quality. EACH REPORTING INSPECTOR has the responsibility to submit complete, accurate and quality inspection data.
- The collection and control of data can be constructed so the ATOS database meets the needs of the CMT in an efficient manner.

- **Measuring Data Quality.**

- Some commonly used attributes or characteristics to measure data quality include accuracy, completeness, consistency, reliability, timeliness, uniqueness, and validity. As with the attributes in ATOS, interdependencies exist between data quality attributes.
- In order to assess the quality, data can be categorized into basic components called dimensions. Dimensions are aspects of data quality such as security, accuracy, objectivity, etc. ATOS controls some data quality dimensions through automation.
- Grouping attributes into the dimensions listed in the *Data Dimensions Table* below should help the inspector properly construct their comments in order to be complete and descriptive. Further, using the guidance listed below should help organize the information necessary to ensure comprehensibility and proper interpretation of the information.

- **Reporting Inspector Responsibility.**

- Inspectors play an important role by incorporating certain data dimensions in their reporting. Before submitting an inspection record, a dimensional review of the data should be accomplished, thus reducing the possibility of non-concurrence or being returned to the Inspector for corrections.
- Before submitting a Dynamic Observation Report (DOR), the reporting Inspector should accomplish a dimensional review of the data and ensure that the DOR meets one of the following criteria:
  - Single-activity unplanned observation that is unrelated to the ATOS system element being inspected.
  - Single-activity unplanned observation where there is not an ATOS element that addresses the unique situation.
  - Observation that is related to the system element being inspected but is not covered by any of the Data Collection Tool questions for that element.
  - Observation made during a specific inspection events that is directed by Handbook Bulletin or other National directive.
  - Unplanned surveillance observation that is requested by a Principal Inspector, with instructions to inspect and report on a specific area of immediate concern outside the normal re-targeting.
- A *Data Dimensions Table* and a *Specific Data Requirements Table* have been provided in this document as tools for increasing the quality of inspection records.

- **DEPM Responsibility.**

- The DEPM will use the following tables for determining acceptable levels of data quality during their evaluation of inspection records. If the data meets the defined Data Dimensions and Specific Data Requirements that the DEPM is able to evaluate, the DEPM will indicate concurrence and save the record to the ATOS Data Repository. The data will then be ready for analysis.
- The DEPM will return any inspection records that do not meet the Data Dimensions or Specific Data Requirements. The DEPM will coordinate with the reporting inspector in an

effort to resolve the data quality discrepancies.

- The DEPM will return any Dynamic Observation Reports (DOR) that do not meet the Data Dimensions, Specific Data Requirements, or Criteria listed under Inspector Responsibility in the preceding section. The DEPM will coordinate with the reporting inspector in an effort to resolve the data quality discrepancies.
- If, after conferring with the DEPM, the inspector still believes that the data conforms to the applicable data dimensions, the inspection record is retained in its original form. The DEPM will save the record to the ATOS Data Repository and enter a non-concurrence comment in the inspection record explaining the reasons for non-concurrence.
- Any SAI or EPI record that is saved to the ATOS Data Repository with a non-concurrence requires review and comment by the appropriate Principal Inspector.

- **Manager Responsibility**

- Managers and supervisors have an important role in the oversight of all CMT activities, including the reporting of data.
- Managers and supervisors should ensure that inspectors who work for them record their surveillance activities in a timely fashion and that the inspectors adhere to the data quality guidelines.
- CMO managers, to ensure its proper use, should closely monitor the use of Dynamic Observation Reports for their CMT.

Data Dimensions Table		
Note: Data Dimension applicability is shown in parenthesis		
Data Dimension	Definition	Measurement Examples:
<b>Accuracy</b> (SAI, EPI, DOR)	Data must be technically correct, reliable, and free of error.	<ul style="list-style-type: none"> <li>All explanations and comments should be grammatically correct, using sentence case and proper spelling.</li> <li>CFR and other references should be included, where appropriate.</li> </ul>
<b>Appropriate Amount of Data</b> (EPI)	The number of activities required to properly assess a given element may vary considerably. Enough activities should be performed to accurately answer the questions on the Data Collection Tool. It is not reasonable to perform enough activities to ensure a specific statistical level of confidence. Instead, the activities conducted should be varied across time and location to obtain sufficient amounts of quality observations to reflect the performance (EPI) of the system element.	<ul style="list-style-type: none"> <li>Typically, at least 5 to 10 activities should be conducted during an EPI.</li> <li>The reporting inspector should follow the PI instructions that pertain to the scope (time, location, etc.) of the inspection.</li> </ul>
<b>Appropriate Amount of Data</b> (SAI)	Each SAI question should be answered only once by a member of the SAI Team in order to evaluate the adequacy of the system element.	<ul style="list-style-type: none"> <li>SAI Team Coordinators (TC) should work with team members to plan inspection activities and ensure that each Data Collection Tool question is answered once during the course of the inspection.</li> <li>Although multiple activities may be required to complete an SAI, team members should avoid multiple responses to individual SAI questions.</li> </ul>
<b>Appropriate Amount of Data</b> (DOR)	Each DOR shall consist of a single activity observation. If an observation consists of multiple findings related to the same system, sub-system, or element, a single DOR shall be completed. If an observation consists of multiple findings relating to several different systems, subsystems, or elements, a new DOR shall be completed for each separate finding.	<ul style="list-style-type: none"> <li>Record a single-activity "unplanned observation" that is unrelated to the ATOS system element being inspected.</li> <li>Report a single-activity "unplanned observation" where there is not an ATOS element that addresses the unique situation.</li> <li>Report a single-activity "unplanned observation" that is related to the system element being inspected but are not covered by the Data Collection Tool questions.</li> <li>Report a single-activity "unplanned observation" on specific inspection events as directed by Handbook Bulletin or other National directive.</li> <li>Report a single-activity "unplanned observation" that is requested by a Principal Inspector, with instructions to inspect and report on a specific area of immediate concern outside the normal re-targeting.</li> </ul>

Data Dimensions Table		
Note: Data Dimension applicability is shown in parenthesis		
Data Dimension	Definition	Measurement Examples:
<b>Completeness</b>  (SAI, EPI, DOR)	Data must be of sufficient breadth, depth, and scope for the task at hand. All necessary and relevant data is captured to show as complete a picture of the situation as possible.	<ul style="list-style-type: none"> <li>• All applicable common data field information should be entered.</li> <li>• At a minimum, every activity must include Activity Start Date, Activity End Date, and Departure Point/Location.</li> <li>• If the activity involved an individual aircraft, the registration number and make, model and series must be entered.</li> <li>• If the activity involved an aircraft fleet, the make and model must be entered.</li> <li>• If the activity involved an aircraft flight, the arrival point, departure point, flight number, and 8430-13 number must be entered.</li> <li>• Explanations must include the “who, what, where, when, why, and how” to describe the observation.</li> <li>• Observations on SAI, EPI, or DOR that result in a "no" response due to an <u>unsafe condition or possible regulatory non-compliance</u> require action by the observing inspector that must be reported in the “reporting inspector action taken” text block.</li> <li>• <b>Element-based observation DOR</b> must include a response to at least one question with an explanation or comment, if applicable.</li> <li>• <b>Other Observation DOR</b> must include a complete description of the observed condition in the “Comment” block.</li> </ul>
<b>Consistency</b>  (SAI, EPI, DOR)	The data should be presented in the same format and be compatible with previous data.	<ul style="list-style-type: none"> <li>• EPI/DOR: Responses, explanations, and comments within the activity report should not conflict with other responses, explanations, and comments within the <u>same activity report</u>.</li> <li>• SAI: Responses, explanations, and comments within the activity report should not conflict with other responses, explanations, and comments within the <u>same activity report</u>, or any other activity report within the <u>same inspection record</u>.</li> </ul>

Data Dimensions Table		
Note: Data Dimension applicability is shown in parenthesis		
<b>Ease of Understanding</b>  (SAI, EPI, DOR)	Data must be clear, without ambiguity, and easily comprehended.	<ul style="list-style-type: none"> <li>• All explanations and comments should be written in clear, concise language.</li> <li>• Any abbreviations or non-defined acronyms used should be commonly understood within the aviation industry.</li> <li>• The DEPM must be able to read and understand what the explanation or comment means.</li> <li>• Explanations and comments must be complete and descriptive, with as much information as necessary for someone knowledgeable with the air transport industry to understand without requiring further information.</li> </ul>
<b>Objectivity</b>  (SAI, EPI, DOR)	Data must be unbiased (unprejudiced) and impartial.	<ul style="list-style-type: none"> <li>• Explanations must be statements of fact or fact-based conclusions, based on actual observations, rather than inspector opinions.</li> </ul>
<b>Relevancy</b>  (SAI, EPI, DOR)	The data should be valid and applicable to the observation or question being answered.	<ul style="list-style-type: none"> <li>• The response, explanation, or comment should directly relate to the specific question asked, and the "Yes," "No" or "N/A" response that was selected for that question.</li> <li>• The methodology used to collect the data was appropriate.</li> <li>• Explanations and comments should not include administrative information. (i.e. "James Doe completed Initial Operating Experience satisfactorily.")</li> </ul>
<b>Timeliness</b>  (SAI, EPI, DOR)	The age of the data must be appropriate for the task at hand. The inspection record should not be left open as a means to collect information that may present itself in the future.	<ul style="list-style-type: none"> <li>• Most activities should normally be opened and closed in a single day.</li> <li>• The inspection data should be entered into the activity report and saved to final status as soon as practical after the activity is completed.</li> <li>• As a general rule, most EPI should be completed within 30-60 days and most SAI in 60-90 days.</li> <li>• Since DOR record single activity observations, they should generally be completed within a single day.</li> <li>• The reporting inspector should adhere to SAI/EPI Instructions provided by the Principal on timelines.</li> </ul>

Data Dimensions Table		
Note: Data Dimension applicability is shown in parenthesis		
<b>Value Added</b>  (SAI, EPI, DOR)	Data should be beneficial and provide advantages from their use.	<ul style="list-style-type: none"> <li>The word “None” shall not be entered as an explanation nor shall it be entered in any comment field.</li> <li>Each explanation and comment must stand-alone and not refer to the response for another question. (i.e. “see above” or “same as question 3”).</li> <li>Inspectors should not enter a description of what they did to complete the particular inspection activity being reported.</li> <li>DOR should be used only to report an observation that the inspector has made. They are not used simply to make a record of an activity that was performed.</li> </ul>

Specific Data Requirements Table		
Field	DOs and DO NOTs	Examples and Explanations
Note: Field applicability is shown in parenthesis		
<b>System</b>  (DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the appropriate System applicable to the observation from the drop down list provided for the field.</li> </ul>	<ul style="list-style-type: none"> <li>If the observation that occurred can be related to an ATOS System, select the appropriate system from the drop-down list.</li> <li>Example: “1.0 Aircraft Configuration Control.”</li> </ul>
<b>Sub-system</b>  (DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the appropriate Sub-system applicable to the observation from the drop down list provided for the field.</li> </ul>	<ul style="list-style-type: none"> <li>If the observation that occurred can be related to an ATOS Sub-system, select the appropriate subsystem from the drop-down list.</li> <li>Example: “1.3 Maintenance Organization.”</li> </ul>
<b>Element</b> (DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO</b> enter the Element applicable to the observation from the drop down list provided for the field.</li> </ul>	<ul style="list-style-type: none"> <li>If the observation that occurred can be related to an ATOS Element, select the appropriate element from the drop-down list.</li> <li>Example: “1.3.1 Maintenance Program.”</li> </ul>
<b>Air Carrier</b>  (DOR)	<ul style="list-style-type: none"> <li><b>Do</b> enter the air carrier applicable to the observation from the drop down list provided for the field.</li> </ul>	<ul style="list-style-type: none"> <li>The report must be directed at a specific air carrier.</li> <li>Select the air carrier’s name from the drop down list provided.</li> <li>Only ATOS air carriers are available in the drop down list.</li> </ul>
<b>PTRS Activity Code</b> (DOR*)  <i>*Applies only to “Other Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>Do</b> enter the appropriate PTRS Activity Code applicable to the observation from the drop down list provided for the field.</li> <li><b>DO NOT</b> use the DOR to</li> </ul>	<ul style="list-style-type: none"> <li>If the observation that occurred can be related to a PTRS activity code, select the appropriate code from the drop-down list. <u>Note:</u> Only 16XX, 36XX, and 56XX surveillance codes are available.</li> <li>En route inspections, which are not conducted</li> </ul>



Specific Data Requirements Table		
Field	DOs and DO NOTs	Examples and Explanations
	report a PTRS activity that was performed, such as an en route inspection.	as part of a targeted EPI, shall be reported in PTRS. <ul style="list-style-type: none"> <li>Other PTRS surveillance activities are not authorized under ATOS.</li> </ul>
<b>Activity Start Date</b> (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter in mm/dd/yyyy format.</li> </ul>	<ul style="list-style-type: none"> <li>"02/09/2000" or "11/24/2001"</li> <li>The appropriate date may be selected from the pop-up calendar or typed into the field.</li> </ul>
<b>Activity End Date</b> (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter in mm/dd/yyyy format.</li> </ul>	<ul style="list-style-type: none"> <li>"02/09/2000" or "11/24/2001"</li> <li>The appropriate date may be selected from the pop-up calendar or typed into the field.</li> </ul>
<b>Departure Point/Location</b> (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter an airport identifier in the Departure Point/Location field for all surveillance activities.</li> </ul>	<ul style="list-style-type: none"> <li>If the surveillance activity was not conducted on an airport, enter the airport identifier that was closest to the site of the surveillance in the Departure Point/Location field.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> enter the 3-letter FAA airport identifier for airports within the 50 United States using all capital letters.</li> </ul>	<ul style="list-style-type: none"> <li>"SFO" for San Francisco Intl airport.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> enter the 4-letter ICAO airport identifier for airports outside of the 50 United States using all capital letters.</li> </ul>	<ul style="list-style-type: none"> <li>Use "EGLL" for the London-Heathrow airport instead of the "LHR" OAG identifier.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> use OAG or carrier created identifiers.</li> </ul>	<ul style="list-style-type: none"> <li>This normally applies only outside of the 50 United States. Use "MMEX" for Mexico City instead of the "MEX" OAG identifier.</li> </ul>
<b>Arrival Point</b> (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the 3-letter FAA airport identifier for airports within the 50 United States using all capital letters.</li> </ul>	<ul style="list-style-type: none"> <li>Enter "ATL" for "The William B. Hartsfield Atlanta Intl" airport.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> enter the 4-letter ICAO airport identifier for airports outside of the 50 United States using all capital letters.</li> </ul>	<ul style="list-style-type: none"> <li>Use "RJAA" for the "New Tokyo Intl" airport instead of the "NRT" OAG identifier.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> enter an airport identifier for the arrival airport if a flight number was entered in the Flight Number field.</li> </ul>	<ul style="list-style-type: none"> <li>All scheduled flights have an arrival airport and a destination airport published. Make an entry for both airports. If a flight diverts to a new destination, enter the identifier for that airport, not the scheduled arrival point.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> use OAG or carrier created identifiers.</li> </ul>	<ul style="list-style-type: none"> <li>This normally applies only outside of the 50 United States. Use "TJSJ" for San Juan, Puerto Rico instead of the "SJU" OAG identifier.</li> </ul>
<b>Certified Repair Stations Number</b> (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the full Flight Standards designated certificate number of the repair station.</li> </ul>	<ul style="list-style-type: none"> <li>An example of a foreign repair station number is "OXEY097L" for Aeroelectronica. A domestic repair station number example is "XE5R213O" for Texas Aero Engine Services.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> use lower case letters in the entry.</li> </ul>	<ul style="list-style-type: none"> <li>"abcd1234r" is not an acceptable entry.</li> </ul>

Specific Data Requirements Table		
Field	DOs and DO NOTs	Examples and Explanations
<b>Aircraft Registration Number</b>  (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter an aircraft's full registration number if an individual aircraft was involved in the surveillance observation.</li> </ul>	<ul style="list-style-type: none"> <li>"N123DL"</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> include the registration prefix as part of the entry.</li> </ul>	<ul style="list-style-type: none"> <li>Some U.S. air carriers may use foreign registered aircraft. For statistical analysis reasons, it could be important to be able to discern what country holds the aircraft's registration. Valid examples include:               <ul style="list-style-type: none"> <li>"N123DL", United States</li> <li>"N123AA", United States</li> <li>"G4321", Great Britain</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> use air carrier designated Nose Numbers, Tail Numbers, etc.</li> </ul>	<ul style="list-style-type: none"> <li>In some cases the carrier's Nose Number matches the core of the registration number. In many cases, they are not the same. The only valid way to uniquely identify a particular aircraft is through the country of registry's registration number.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> use lower case letters in the entry.</li> </ul>	<ul style="list-style-type: none"> <li>"n123aa" is not an acceptable entry.</li> </ul>
<b>Make, Model, Series</b>  (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> select a Make-Model-Series or a Make-Model from the drop down list provided for the field if the activity involved aircraft.</li> </ul>	<ul style="list-style-type: none"> <li>If a particular aircraft was involved as the subject of the surveillance or directly involved in the surveillance, enter a Make-Model-Series from the drop down list.</li> <li>If the activity was oriented to a fleet of aircraft that include several series of like Makes and Models, enter just the Make-Model from the drop down list.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> ask the DEPM to add any needed Make-Model or Make-Model-Series aircraft to the drop down list.</li> </ul>	<ul style="list-style-type: none"> <li>It is a responsibility of the DEPM to maintain an accurate and current fleet manifest of the CMT's aircraft that is used to populate the drop down list.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter a Make-Model-Series or a Make-Model if the activity did not involve aircraft.</li> </ul>	
<b>Flight Number</b>  (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the flight number if a revenue flight was involved in the observation and the Reporting Inspector was on-board the flight.</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance, training, and administrative non-revenue flight numbers may be entered if they are known. However, they are not mandatory.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter a prefix to the flight number.</li> </ul>	<ul style="list-style-type: none"> <li>A valid flight number entry for an American Airlines flight could be "1247".</li> <li>An invalid flight number entry for the same American Airlines flight would be "AA1247".</li> <li>The automation knows the carrier was American Airlines because the record is associated with the American Airlines CSP.</li> </ul>

Specific Data Requirements Table		
Field	DOs and DO NOTs	Examples and Explanations
<b>Simulator Device ID</b>  (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the correct "Simulator ID" when a simulator was involved in the surveillance.</li> </ul>	<ul style="list-style-type: none"> <li>The correct Simulator ID can be verified by the simulator certificate or by the "SIMULATR.DB" Paradox table in the "FSAS" folder located on your local area network.</li> </ul>
<b>FAA 8430-13 Number</b>  (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> enter the 8430-13 number if the 8430-13 was used during the conduct of the inspector's assigned ATOS surveillance.</li> </ul>	<ul style="list-style-type: none"> <li>If an 8430-13 was used during <b>non-ATOS assigned surveillance</b>, the 8430-13 should be entered in the required PTRS record.</li> </ul>
<b>Response Not Answered (Left Blank)</b>  (SAI, EPI)	<ul style="list-style-type: none"> <li><b>DO</b> schedule another SAI or EPI activity to observe the element question at a later time, if the question's subject was not observed during the activity and is applicable to the carrier.</li> </ul>	<ul style="list-style-type: none"> <li>If the element question asked, "Were the written procedures adhered to for the AD Management process?" and no procedures were observed the response should not be selected and the explanation should be left blank.</li> </ul>
(SAI, EPI)	<ul style="list-style-type: none"> <li><b>DO</b> follow the specific instructions in the SAI or EPI concerning not answered responses.</li> </ul>	<ul style="list-style-type: none"> <li>There may be occasional circumstances when it is not possible to observe an event listed on an EPI. For example, an inspector may not observe an intoxicated passenger during an entire EPI. Specific instructions tell the inspector what to do when in these circumstances.</li> </ul>
(SAI, EPI, DOR*)  <i>*Applies only to "Element-Based Observation" DOR</i>	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter a response if the question was not observed during the conduct of an activity and "N/A" is not an appropriate response.</li> </ul>	<ul style="list-style-type: none"> <li>If the question's subject was not observed during the surveillance activity and the subject was applicable to the carrier, then the response should be left blank.</li> </ul>
(SAI, EPI, DOR*)  <i>*Applies only to "Element-Based Observation" DOR</i>	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter a response if the question asks "Were written procedures consistent across manuals?" and only one manual was inspected.</li> </ul>	<ul style="list-style-type: none"> <li>Entries must be responsive to the question.</li> </ul>
(SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter a response if you are unsure whether something observed was unsatisfactory or potentially unsatisfactory.</li> </ul>	<ul style="list-style-type: none"> <li>There is no "maybe" response. The inspector needs to do additional research and plan another activity to make a definitive determination if the correct response should be "Yes" or "No".</li> </ul>

Specific Data Requirements Table		
Field	DOs and DO NOTs	Examples and Explanations
<b>Response</b>  <b>“Yes”</b>  (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li>• <b>DO</b> enter “Yes” to indicate the requirements were met.</li> </ul>	<ul style="list-style-type: none"> <li>• The Data Collection Tool questions are written so that “Yes” is always a favorable response.</li> <li>• A “Yes” answer always indicates a positive response. Great care should be taken when determining if the response is positive. If the inspector indicates a positive answer using a qualifier (e.g. “Yes, but...”) this may drive the answer to actually be a “No.” In that case, the inspector should re-evaluate their comments and their answer to ensure it is not contrary to the “Yes” response.</li> <li>• Answer the question based on just what was observed during the activity.</li> </ul>
<b>Response</b>  <b>“Yes”</b>  (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>		<ul style="list-style-type: none"> <li>• SAI: A “Yes” response indicates that for the specific question being asked and for the particular SAI activity being observed, the operator complies with observed specific regulatory requirements (SRR) and applicable FAA guidance for that element. A “Yes” response for SAI also indicates the applicable safety attributes are incorporated into the operator’s procedures.</li> <li>• EPI/DOR: A “Yes” response indicates that the specific question being asked, for the particular activity being observed, the operator complies with observed SRR and applicable FAA guidance for that element. Further, a “Yes” would indicate that the observed procedures and system safety principles approved/accepted for the air carrier are being followed.</li> </ul>
<b>“Yes” Comments</b>  (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li>• Yes comments are not mandatory.</li> <li>• Yes comments are associated with each specific question and not generalized for the entire activity.</li> <li>• Yes comments must meet all current Data Quality Guideline Dimensions.</li> </ul>	<p><b><u>Yes comments may describe:</u></b></p> <ul style="list-style-type: none"> <li>• Which regulatory requirement was complied with.</li> <li>• Which FAA guidance was complied with.</li> <li>• Which air carrier procedure was followed.</li> <li>• Which system safety principle was observed.</li> <li>• Which air carrier controls or interfaces were observed.</li> <li>• Which manuals or records were reviewed.</li> <li>• Which applicable safety attributes are incorporated into an air carrier system or program.</li> </ul>

Explanations are required for a “No” or “N/A” response.		
Field	DOs and DO NOTs	Examples and Explanations
<p><b>Response</b></p> <p><b>“No”</b></p> <p>(SAI, EPI, DOR*)</p> <p><i>*Applies only to “Element-Based Observation” DORs</i></p>	<ul style="list-style-type: none"> <li><b>DO</b> enter “No” to indicate the requirements were not met.</li> </ul>	<ul style="list-style-type: none"> <li>The questions are written so that “No” always indicates a negative response to the question.</li> <li>The significance of a “No” response depends on the specific Data Collection Tool question that is being asked.</li> <li><b>SAI:</b> A “No” response on the specific question being asked, for the particular SAI activity being observed, may indicate that the operator either does not comply with observed specific regulatory requirements (SRR) and/or applicable FAA guidance for that element or that the operator’s procedures do not incorporate the applicable <u>safety attribute</u>. A “No” response can also mean that system safety procedures are weak in the area being evaluated or that the operator’s approved/accepted procedures are inadequate.</li> <li><b>EPI/DOR:</b> A “No” response on the specific question being asked, for the particular activity being observed, may indicate that the operator either does not comply with observed specific regulatory requirements (SRR) and/or applicable FAA guidance for that element or that the operator’s <u>procedures are not being followed</u>. A “No” response can also mean that system safety procedures are weak in the area being evaluated or that the operator’s approved/accepted procedures are inadequate.</li> </ul>

Explanations are required for a “No” or “N/A” response.		
Field	DOs and DO NOTs	Examples and Explanations
<b>Response</b>  <b>“No”</b>  (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>		<ul style="list-style-type: none"> <li>The intent was never that a single “No” answer would equate to an unsafe condition or a regulatory violation, unless that particular “No” has a regulatory basis and the inspector observed a possible violation or an unsafe condition.</li> </ul>
<b>Response</b>  <b>“N/A”</b>  (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO</b> enter “N/A” when a particular question does not apply to the air carrier’s operation being evaluated.</li> </ul>	<ul style="list-style-type: none"> <li>If the air carrier’s type of operation, type of aircraft, or area of operation does not apply due to the air carrier’s Operational Specifications and/or Principal Inspector instructions for that particular inspection, only then is “N/A” an appropriate response.</li> </ul>
<b>“No” Explanations</b> (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO</b> explain the reasons for your “No” response.</li> </ul>	<ul style="list-style-type: none"> <li>An explanation of the “who, what, where, when, and how” that caused the “No” response must be entered. The explanation should be plain and comprehensible.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> write your explanation so it is understandable.</li> </ul>	<ul style="list-style-type: none"> <li>The explanation should be written in clear, concise language.</li> <li>Abbreviations and non-defined acronyms used should be commonly understood within the aviation industry.</li> <li>The DEPM should be able to read and understand what the explanation means.</li> <li>Explanations should be complete and descriptive, with as much information as necessary for someone knowledgeable with the air transport industry to understand without requiring further information.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> write your explanation so that it answers the question in a responsive way.</li> </ul>	<ul style="list-style-type: none"> <li>The explanation must be pertinent to the question’s intent. The explanation should have a logical, precise relevance to the matter at hand.</li> </ul>

Explanations are required for a “No” or “N/A” response.		
Field	DOs and DO NOTs	Examples and Explanations
<p><b>“No” Explanations</b> (SAI, EPI, DOR*)</p> <p><i>*Applies only to “Element-Based Observation” DORs</i></p>	<ul style="list-style-type: none"> <li>• <b>DO</b> select an applicable ATA code.</li> </ul>	<ul style="list-style-type: none"> <li>• ATA codes should reflect the known primary and secondary aircraft systems that were identified as being related to the principle cause of the “No” response. Otherwise, the codes should be left blank.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DO</b> write your explanation so that it is technically correct, reliable, and free of error.</li> </ul>	<ul style="list-style-type: none"> <li>• The explanation should be grammatically correct.</li> <li>• The explanation should be written with complete sentences that are punctuated and capitalized correctly.</li> <li>• The explanation should not contain spelling errors.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DO</b> include references where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• CFR and other references should be included in explanations.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DO</b> make each explanation stand-alone.</li> </ul>	<ul style="list-style-type: none"> <li>• There is no direct link between the explanation for one question and another. Each explanation must stand-alone for effective analysis and reader understanding.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> refer to the explanation for another question.</li> </ul>	<ul style="list-style-type: none"> <li>• “See above” or “same as question 3” or “refer to the Tulsa Main Base Report” are all examples of references to avoid.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use the explanation field to critique the ATOS process.</li> </ul>	<ul style="list-style-type: none"> <li>• The “Problem Reporting &amp; Feedback” hyperlink is the proper avenue to use for improvement suggestions and reporting of deficiencies in ATOS.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> enter opinions in the explanation.</li> </ul>	<ul style="list-style-type: none"> <li>• The explanation should be statements of fact or fact-based conclusions. Fact-based conclusions are based on actual observations or facts rather than inspector opinions.</li> </ul>

Explanations are required for a “No” or “N/A” response.		
Field	DOs and DO NOTs	Examples and Explanations
<b>“No” Explanations</b> (Continued)  (SAI, EPI, DOR*)	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter the word “None” by itself in the explanation field.</li> </ul>	<ul style="list-style-type: none"> <li>Entry of anything contrary to the ATOS Data Quality Guidelines degrades the quality and integrity of the data. Use of spaces, periods, or other characters by themselves to circumnavigate the requirement for an explanation will not be acceptable.</li> </ul>
<b>“N/A” Explanations</b> (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO</b> explain the reasons for your “N/A” response.</li> </ul>	<ul style="list-style-type: none"> <li>If the air carrier’s type of operation, type of aircraft, or area of operation does not apply due to the air carrier’s Operation Specifications and/or the Principal Inspectors instructions for that particular inspection, only then is “N/A” an appropriate response. A factual statement must be entered as to why the response was “N/A” (e.g. ABC Airlines is not approved in their Operation Specification to conduct RVSM operations).</li> </ul>
<b>“Other Comments, use space below” field</b> (SAI, EPI, DOR*) <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO</b> refer to SAI/EPI specific instructions for further guidance on the use of this field.</li> </ul>	<ul style="list-style-type: none"> <li>Specific instructions will advise users how and where to answer specific questions within the Data Collection Tool.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> refer to the question number.</li> </ul>	<ul style="list-style-type: none"> <li>If the inspector enters information specific to one of the questions, the question number must be included along with the comment.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO</b> include a comment in all “Other Observation” DOR.</li> </ul>	<ul style="list-style-type: none"> <li>Since the primary purpose of a DOR is to record unplanned observations not surveillance activities, a DOR for “Other Observations” is incomplete without a description of the observation in the comment block.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter negative remarks within the comment.</li> </ul>	<ul style="list-style-type: none"> <li>Negative explanations should be entered in an explanation field of a question with a “No” response, not in “Other Comments.”</li> </ul>



Explanations are required for a “No” or “N/A” response.		
<b>“Other Comments, use space below” field</b> (SAI, EPI, DOR*)  <i>*Applies only to “Element-Based Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO NOT</b> include comments that do not add value to the ATOS process.</li> </ul>	<ul style="list-style-type: none"> <li>The comment, “The procedures were followed and are adequate.” is of no value.</li> <li>DEPMs will evaluate the information contained in the comment field to ensure the data is appropriate.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> use the comment field to critique the ATOS process.</li> </ul>	<ul style="list-style-type: none"> <li>The “Problem Reporting &amp; Feedback” hyperlink from the Home page of ATOS is the proper avenue to use for improvement suggestions and reporting of deficiencies in ATOS.</li> </ul>
<b>“Comments” field</b> (DOR*)  <i>*Applies only to “Other Observation” DOR</i>	<ul style="list-style-type: none"> <li><b>DO</b> enter what was observed in the course of the observation.</li> </ul>	<ul style="list-style-type: none"> <li>Describe in detail what was observed and include all relative facts, i.e. who, what where, when, why, and how, as applicable.</li> <li>Entries must be statements of fact or fact-based conclusions, based on actual observations.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter what actions the inspector conducted during the course of the observation.</li> </ul>	<ul style="list-style-type: none"> <li>Inspectors should not enter a description of what they <u>did</u> to complete the particular inspection activity being reported.</li> </ul>
<b>“Inspector Action Taken” field</b> (SAI, EPI, DOR)	<ul style="list-style-type: none"> <li><b>DO</b> record actions taken by reporting inspectors as a result of the deficiencies observed.</li> </ul>	<ul style="list-style-type: none"> <li>These actions may include notifying appropriate air carrier personnel of a potential non-compliance, consulting with air carrier or other FAA officials to obtain additional information, or initiating an enforcement investigation.</li> </ul>
	<ul style="list-style-type: none"> <li><b>DO NOT</b> enter a description of what was done during the observation.</li> </ul>	<ul style="list-style-type: none"> <li>Inspectors should not enter a description of what they did to complete the particular inspection activity being reported.</li> </ul>